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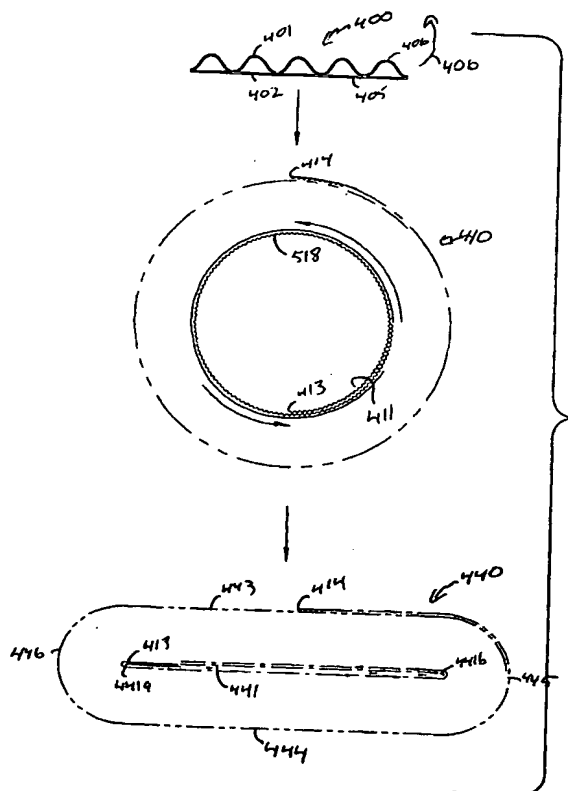
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[Continued on next page]

(54) Title: IMPROVED PROCESS AND MATERIALS FOR COILING Z-FILTER MEDIA, AND/OR CLOSING FLUTES OF FILTER MEDIA; AND, PRODUCTS



(57) Abstract: Approaches to providing z-filter media constructions are provided. Preferred corrugated media, filter constructions having such corrugated media, and filter systems using such filter constructions are provided. Also, preferred methods of forming filter constructions are provided. In general, then, methods of preparing a z-filter media construction including coiled z-filter media are provided including steps according to the process of Figs.11 and 21. The typical process comprises using z-filter media comprising a fluted, and preferably corrugated, sheet secured to a non-fluted non-corrugated facing sheet. The method generally includes steps of: (a) guiding a front end extension of a strip of z-filter media into a media catch slot of a winding hub; (b) in follow up, coiling the strip of media around the outside of the winding hub, with the facing sheet directed outwardly, to form a resulting media coil; and (c) removing the resulting media coil from the winding hub. Preferably the winding is conducted using a strip that has both a front side sealant strip and a backside sealant strip, most preferably at least the backside sealant strip is foamed polyurethane.



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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

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Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched.

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)  
EPO-Internal

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/096247 A1 (WYDEVEN ROBERT M) 25 July 2002 (2002-07-25) page 5, paragraph 83-86; figure 4a	1-27
A	US 6 190 432 B1 (FINNERTY CAROLYN J ET AL) 20 February 2001 (2001-02-20) cited in the application the whole document	
A	EP 0 630 672 A (NIPPON DENSO CO) 28 December 1994 (1994-12-28) the whole document	
A	WO 97/40918 A (DONALDSON CO INC) 6 November 1997 (1997-11-06) the whole document	
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 416 605 B1 (GOLDEN PATRICK) 9 July 2002 (2002-07-09) the whole document -----	

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Information on patent family members

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